

**AMC-SCHOU**

**CYLINDER BLOCK BORING AND MILLING MACHINES**

---

**AMC  
SCHOU**

**THE BENEFITS  
OF PRECISION**

# PRESENTING AMC-SCHOU'S CYLINDER BLOCK BORING AND MILLING PROGRAMME

Backed by more than 40 years of experience, AMC-SCHOU can supply all your needs for fast and easy milling and cylinder block reboring up to 350 mm in diameter. Our programme consists of 4 machines: C 1200V, CM 1200V, CM 1800V and CM 2500V.

All machines are equipped with a powerful 4 kW motor for infinitely variable spindle speed and feature 2 motors for high and low boring feeds. Fast retraction of the spindle from the cylinder (1500 mm/min.) greatly increases productivity. CM machines feature both reboring and milling operations with infinitely variable control for table traverse, from 100 - 1200 mm/min. The emphasis is on speed and precision. With spindle rotation up to 1200 r.p.m. and boring feed up to 1500 mm/min, think how much time you can save on the blocks you are reboring today!

All machines are equipped with cycle control - the spindle will automatically retract when boring is finished and by activating a single switch on the control panel, the table will move and position the block ready for centering the spindle in the next cylinder (CM machines only).

## CONTROL PANEL



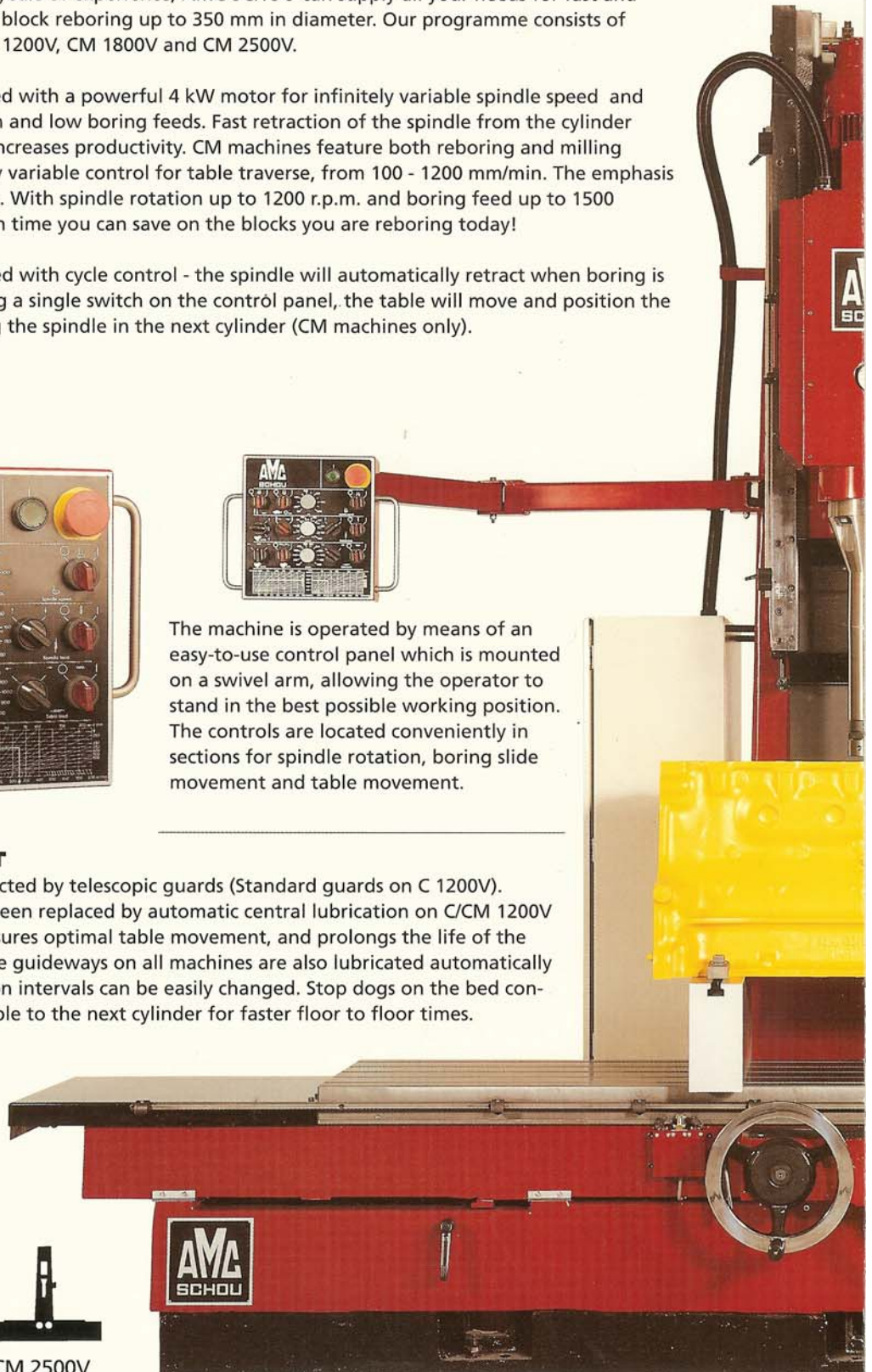
The machine is operated by means of an easy-to-use control panel which is mounted on a swivel arm, allowing the operator to stand in the best possible working position. The controls are located conveniently in sections for spindle rotation, boring slide movement and table movement.

## TABLE MOVEMENT

The guideways are protected by telescopic guards (Standard guards on C 1200V). Manual lubrication has been replaced by automatic central lubrication on C/CM 1200V and CM 1800V which ensures optimal table movement, and prolongs the life of the machine. The boring slide guideways on all machines are also lubricated automatically by this system. Lubrication intervals can be easily changed. Stop dogs on the bed control movement of the table to the next cylinder for faster floor to floor times.



C/CM 1200V   CM 1800V   CM 2500V

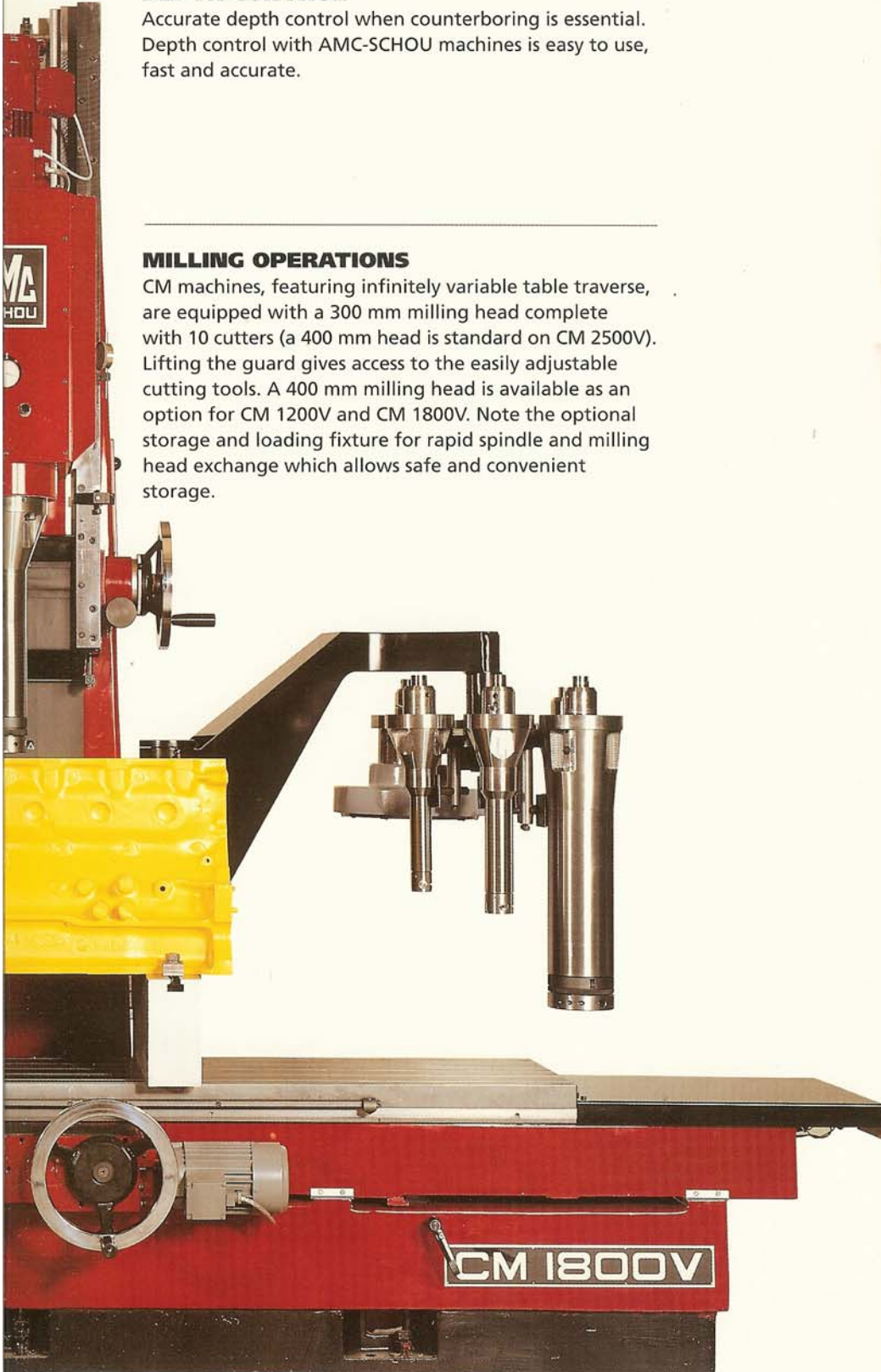


### DEPTH CONTROL

Accurate depth control when counterboring is essential. Depth control with AMC-SCHOU machines is easy to use, fast and accurate.

### MILLING OPERATIONS

CM machines, featuring infinitely variable table traverse, are equipped with a 300 mm milling head complete with 10 cutters (a 400 mm head is standard on CM 2500V). Lifting the guard gives access to the easily adjustable cutting tools. A 400 mm milling head is available as an option for CM 1200V and CM 1800V. Note the optional storage and loading fixture for rapid spindle and milling head exchange which allows safe and convenient storage.



# EQUIPMENT

## STANDARD EQUIPMENT (FOR A COMPLETE LIST, SEE BACK)



### Tooling

With a direct reading micrometer clamped on the spindle by special holders, fast and accurate tool setting is achieved. Tooling for changing boring heads, T-bolts and spanners are also standard.



### Setting-Up Blocks

2 blocks of 160 mm height, and 2 blocks of 200 mm height are standard on all machines. A smaller set of blocks, 130 mm height (shown above right) is available as optional equipment. All blocks are supplied with 4 T-bolts.



### Milling Head

All CM machines are supplied with a 300 mm milling head as standard (400 mm on CM 2500V). 10 easily adjustable cutters, and infinitely variable r.p.m. are standard.

## EXTRA EQUIPMENT (FOR A COMPLETE LIST, SEE BACK)



### Boring Spindle No. 1 - 4

AMC-SCHOU supplies a full range of spindles. Above are spindles covering the range from 48 - 260 mm. No. 1: 48-72 mm. No. 2: 62-100 mm. No. 3: 92-200 mm. No. 4: 145-260 mm.



### Boring Heads

Extra boring heads are supplied with some spindles (see back for details). The 140 mm boring head can be used with spindle No. 3 and No. 4. The larger 190 mm boring head can be used with spindle No. 4 and No. 7. Extra boring heads, 260 mm and 300 mm are available for spindle No. 7.



### Boring Spindle No. 5

The smallest spindle from AMC-SCHOU with a range from 32 - 50 mm.



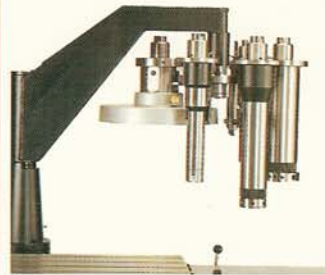
### Morse Taper

The morse taper No. 3 can be used for drilling operations as shown here.



### Insert Boring Tools

AMC-SCHOU supplies hardened tool holders with high-speed inserts. Triangular inserts (3 cutting tips per insert) are standard. Special inserts for different material types are available from all the major insert suppliers; standard size inserts fit AMC-SCHOU tool holders.



### Storage and Loading Fixture for Spindles

The AMC-SCHOU storage fixture doubles as a loading arm. When loading a heavy milling head, the spindle will be perpendicular to the mounting surface of boring slide, allowing trouble free mounting always.



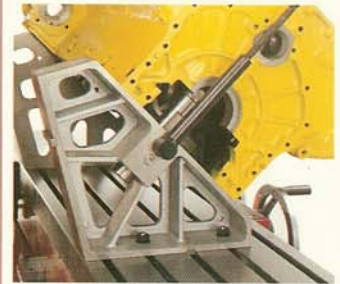
### Tool Grinder

The tool grinder with its 150 mm grinding and diamond lapping wheels ensures that correct angles are ground on carbide tipped boring tools. Can also be used to grind boring tools for line boring machines as well as con-rod boring and grinding machines.



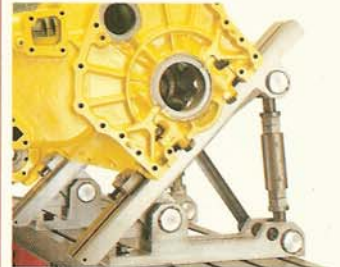
### Quick Acting Clamps

These clamps are indispensable when reboring in-line blocks.



### Universal Boring Stand

With V-blocks, 60° and 90° inclinations can be achieved with this stand. Can be used for reboring or milling operations. Available for all machines.



### Adjustable Angle Fixture

All angles between 60° and 90° can be achieved using the adjustable angle fixture. Can be used for reboring and milling operations. Available for all machines.



### Adjustable Roll-Over Fixture

Reboring and milling of small to medium blocks using this equipment will reduce setting-up time and increase productivity.

## BORING SPINDLES

A selection of boring spindles (which can be mounted in the optional storage and loading fixture) allow boring from 32 mm to 350 mm. All spindles are exceptionally strong, featuring sturdy high precision bearings with constant pre-load. All spindles are interchangeable on the full range of machines. Boring spindles are sealed and greased for life.



*AMC-SCHOU strive to develop products which meet the customer's needs. Our aim is to supply quality machines which enable you to be successful*  
**- THE BENEFITS OF PRECISION.**  
*We welcome your comments on all our products.*

# SPECIFICATIONS

		C/CM 1200V	CM 1800V	CM 2500V
Boring range	mm	32-350	32-350	32-350
Max. boring head travel	mm	780	780	780
Distance spindle head to column	mm	410	410	510
Max. distance spindle head to table	mm	1460	1460	1600
Spindle speed	r.p.m.	100-1200	100-1200	100-1200
Boring feed (low/high)	mm/min	20-200 150-1500	20-200 150-1500	20-200 150-1500
Quick return of boring slide	mm/min	1500	1500	1500
Table surface	mm	1525x450	2130x450	2540x600
Table traverse lengthwise	mm	1350	2025	2675
Max. milling length (CM only)	mm	1050	1725	2275
Table speed (CM only)	mm/min	100-1200	100-1200	100-1200
Table movement crosswise	mm	140	140	140
Milling width (CM only)	mm	300	300	400
Optional milling width	mm	400	400	300
Max. distance between outer cylinder centres	mm	1200	1800	2500
Spindle motor	kW	4	4	4
Work space required	mm	3700x1720	5380x1720	6000x1900
Work height required	mm	3010	3010	3200
Height of column	mm	2720	2720	2905
Net weight	kg	3200	4300	5800
Gross weight	kg	3600	4800	6400
Shipping volume	m <sup>3</sup>	9.2	15.7	22.4

Spindle No.		No. 5	No. 1	No. 2	No. 3	No. 4	No. 7
Boring range	mm	32-50	48-72	62-100	92-200	145-260	145-350*
Boring tools length	mm	25, 35	38, 45	45, 60	75, 110	110	110
Chamfering tools length	mm	-	50	65	90, 140	140, 190	140, 190
No. of centering tools		1	1	1	2	2	2
Boring head dia.	mm	30	46	60	90, 140	140, 190	140, 190
Optional boring heads	mm						260, 300
Boring length	mm	125-145	185-245	220-290	340-485	405-605	210-410
Order number		40001505	40001506	40001507	40001508	40001510	40001509

\* When equipped with boring heads 260 mm and 300 mm

## STANDARD EQUIPMENT

- 1 complete electric tropicalized installation for 220, 380, 415 or 440 volts, 3-phase AC, 50 or 60 cycles
- 1 boring slide with following functions:
  - Spindle motor, 4.0 kW, stepless, 100-1200 r.p.m./min.
  - Motor for boring feed, 0.25 kW, stepless, 20-200 mm/min.
  - Motor for boring feed, 0.75 kW, stepless, 150-1500 mm/min.
  - Rapid return of boring slide, 1500 mm/min
- 1 automatic central lubrication system
- 1 dial indicator for depth control
- 1 tool setting micrometer with dial gauge
- 3 holders for above
- 2 setting-up blocks, 160 mm high
- 2 setting-up blocks, 200 mm high
- 1 set of bolts and spanners
- 1 set of table guards for table guideways
- 1 milling head, 300 mm incl. 10 cutters and guard (no milling head on C 1200V) (milling head is 400 mm on CM 2500V)
- 1 motor for automatic table traverse, 0.55 kW, stepless 100-1200 mm/min
- 1 relay box and pivoting control panel
- 1 operating manual and spare parts catalogue

Note: all AMC-SCHOU machines are available in metric or imperial graduation

As we are continuously improving our machines, descriptions, dimensions and illustrations are not binding in details.

## EXTRA EQUIPMENT

- Boring spindle No. 5, cap. 32-50 mm complete with 1 centering device, 1 magnetic holder and 2 boring tools
- Boring spindle No. 1, cap. 48-72 mm complete with 2 boring tools, 1 chamfering tool and 1 centering tool
- Boring spindle No. 2, cap. 62-100 mm complete with 2 boring tools, 1 chamfering tool and 1 centering tool
- Boring spindle No. 3, cap. 92-200 mm complete with 2 boring heads, 2 boring tools, 2 chamfering tools and 2 centering tools
- Boring spindle No. 4, No. 7, cap. 145-260 mm complete with 2 boring heads, 1 boring tool, 1 chamfering tool and 2 centering tools (410 mm or 610 mm spindle length)
- Boring spindle with Morse taper No. 3
- Boring head for spindle No. 7, cap. 262-302 mm
- Boring head for spindle No. 7, cap. 302-350 mm
- Storage and loading fixture for spindles and milling head
- Carbide tipped boring tools
- Off-set boring tools
- Boring tool holders for inserts
- Box of 10 high-speed inserts
- Universal boring stand for 90° and 60° V-blocks, 2 pcs. (3 pcs for CM 2500V)
- Set of adjustable angles for V-block set-up, 2 pcs. (3 pcs. for CM 2500V)
- Adjustable roll-over fixture for boring and milling
- Set of quick acting clamps (2 pcs.)
- Milling head 300 mm or 400 mm
- Set of milling inserts, 10 pcs.
- Cylinder measuring gauge, range 50-200 mm
- Setting up blocks, 130 mm, incl. 4 pcs. T-bolts
- Tool grinder



AMC-SCHOU AS  
Røddikvej 82  
Postbox 113  
DK-8464 Galten  
Denmark

Phone: +45 87 545454  
Telefax: +45 87 545455  
E-mail: precision@amc-schou.dk  
Home page: www.amc-schou.dk

THE BENEFITS  
OF PRECISION